## **ABSTRACT**

[0092] The present invention relates to the identification of a gene encoding the protein glutathione S-transferase pi2 as being correlated with the susceptibility to neurotoxicity and concomitantly the risk to develop Parkinson's disease. Based on this correlation, various methods are disclosed, including determining the amount of the one or more glutathione S-transferase present in a biological sample in response to an environmental toxin, to assess the risk to develop Parkinson's disease.